# DATASHEET
# FUJITSU PRIMERGY TX200 S4 SERVER

## COST-EFFICIENT EXPANSION OPTIONS AND FAILSAFE OPERATION

PRIMERGY TX industry standard tower servers: efficient, rock solid, record-breaking performance. PRIMERGY TX servers benefit from over 20 years pioneering work in the field of Green IT. That is how TX servers reach industry – leading performance per watt ratios, lowering the environmental impact and running costs. TX servers can easily be managed locally or remotely via the PRIMERGY ServerView Suite, saving IT admin costs. That's efficient performance. Our made-to-measure service packages take care of your system every step of the way. Rest assured, PRIMERGY TX servers are put through 5000 boot cycles - that's rock solid performance. PRIMERGY TX servers are flexible systems capable of using up to two processors and up to 20 hard disks. Tower to rack mounting kits are available for most TX systems to help you move to a consolidated rack infrastructure. TX servers have a tradition of setting record-breaking performance levels. So, whether you use them as tower or rack servers, for file, print or application purposes, you will benefit from record-breaking performance. PRIMERGY TX: a tower of strength.

### PRIMERGY TX200 S4

Flexible expansion options are the key to placing new or larger workloads on your server. This applies not only to physical capacity, such as the number of disk drives, advanced data protection schemes, or I/O connectivity; in particular consideration of the transition to 64-bit computing and virtualization is a must in today's technology purchase decisions.
The PRIMERGY TX200 S4 is a perfect match for these requirements, providing you with a previously unreached cost-efficient standard. The TX200 S4 is a failsafe operation platform for your application stacks, with standards such as disk mirroring for SAS and SATA, hot-plug disks, SDDC and hot-spare memory and the "Cool-safe™" innovative air flow system design. Expandability is covering for heavy workload: up to 24 GB FBD667 memory, up to 8 (16) 2.5-inch SAS hard disk drives, and 7 (6) free PCI slots for heavy I/O requirements. In addition, further options – such as extended RAID functions, clustering options and redundancy for power su.pplies and fans – tailor these standards to your individual safety needs. Your business can rely on this solution!

# FEATURES AND BENEFITS

| MAIN FEATURES | BENEFITS |
|---|---|
| ■ ECC, built-in RAID 1 functionality and optional ibutton RAID 5 for SATA or modular RAID for SAS configurations | ■ High security against physical loss of data |
| ■ Hot-plug HDD infrastructure (standard), Hot-plug redundant PSU (optional) Redundant fans (optional), | ■ Tailor made availability, offers the security level which is recommended by your individual application demands |
| ■ ServerView Local Service Panel (LSP) (optional) | |
| ■ Energy efficient Intel Quad-Core processor (5400 series), provides four execution cores (2x 6 MB Cache) in one physical processor with less power consumption | ■ Allowing the platform to do more in less time, IT depart-ments can consolidate applications and more effectively employ the server with less power consumption |
| ■ Up to 4x SATA or 4 (6 optional )x SATA/SAS 3.5-inch, up to 8 (16 optional)x 2.5-inch SAS hard disks, 7 PCI/PCIe slots, (6 with SAS), 1x Gbit LAN plus extra Service LAN for iRMC S2 | ■ Expandability options for further growth |

# TECHNICAL DETAILS

| **PRIMERGY TX200 S4** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Housing type** | Tower | Tower | Tower | Tower | Rack | Rack | Rack | Rack |
| **Hard disk architecture** | 3.5" SAS/ SATA | 3.5" SAS/ SATA | 2.5" SAS | 2.5" SAS | 3.5" SAS/ SATA | 3.5" SAS/ SATA | 2.5" SAS | 2.5" SAS |

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|---|---|
| **MAINBOARD** | |
| **Mainboard type** | D 2509 |
| **Chipset** | Intel® 5000Z |
| **PROCESSOR** | Intel® Xeon® processor E5205 (2C, 1.86 GHz, SLC: 6 MB (1066 MHz, 65 W) |
| | Intel® Xeon® processor E5405 (4C, 2.00 GHz, SLC: 2 x 6 MB (1333 MHz, 80 W) |
| | Intel® Xeon® processor E5420 (4C, 2.50 GHz, SLC: 2 x 6 MB (1333 MHz, 80 W) |
| | Intel® Xeon® processor E5430 (4C, 2.66 GHz, SLC: 2 x 6 MB (1333 MHz, 80 W) |
| | Intel® Xeon® processor L5410 (4C, 2.33 GHz, SLC: 2 x 6 MB (1333 MHz, 50 W) |
| | Intel® Xeon® processor L5420 (4C, 2.50 GHz, SLC: 2 x 6 MB (1333 MHz, 50 W) |
| **Memory slots** | 6 (3 Banks with 2 slots each) |
| **Memory slot type** | PC2-5300F (Fully buffered DIMM DDR2 667 ECC) |
| **Memory capacity (min. - max.)** | 1 GB - 24 GB |
| **Memory protection** | Advanced ECC<br>SDDC (Chipkill™)<br>Memory Scrubbing<br>Hot-spare memory support |
| **MEMORY OPTIONS** | 8 GB (2 module(s) 4 GB) DDR2, fully buffered, 667 MHz, PC2-5300F, DIMM |
| | 4 GB (2 module(s) 2 GB) DDR2, fully buffered, 667 MHz, PC2-5300F, DIMM |
| | 2 GB (2 module(s) 1 GB) DDR2, fully buffered, 667 MHz, PC2-5300F, DIMM |
| **INTERFACES** | |
| **USB ports** | 5 x USB 2.0 (1x front, 2x rear, 2x internal) |
| **Graphics (15-pin)** | 1 x VGA |
| **Serial 1 (9-pin)** | 1 x serial RS-232-C, usable for iRMC S2 or system or shared |
| **Serial 2 (9-pin)** | 1 x serial RS-232-C |
| **Parallel (25-pin)** | 1 x Centronics 25-pin EPP/ECP compatible (option) |
| **Mouse / Keyboard (PS/2)** | 2 |
| **LAN / Ethernet (RJ-45)** | 1 x Gbit/s Ethernet |
| **Service LAN (RJ45)** | 1 x dedicated service LAN port for iRMC S2 (10/100 Mbit/s)<br>Service LAN traffic can be switched to shared onboard Gbit LAN port |
| **ONBOARD OR INTEGRATED CONTROLLER** | |
| **RAID Controller** | Integrated RAID 0/1 or RAID 5/6 controller for SAS base units (option, occupies one PCIe slot).<br>See under Components RAID controller |
| **SATA Controller** | 6311ESB, 6-port SATA (4x internal HDDs in SATA base units with RAID 0/1/10 and 2x for accessible drives) |
| **SATA Controller type notes** | optional RAID 5 (iButton key)<br>SATA SW RAID support for Windows and Linux OS only |
| **LAN Controller** | BCM 5708, 10/100/1000 Mbit/s Ethernet, TCP/IP acceleration, PXE-Boot via LAN from PXE server, iSCSI Boot (also diskless) via onboard LAN |

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| **ONBOARD OR INTEGRATED CONTROLLER** | |
| **Remote Management Controller** | Integrated Remote Management Controller (iRMC S2, 32 MB attached memory incl. graphics controller), IPMI 2.0 compatible |
| **Onboard Controller notes** | For detailed information please refer to the coresponding system configurator. |
| **SLOTS** | |
| **PCI-Express x4 (mech. x8)** | 4 x (2 slots x8 with performace adapter option) 2 x long (1x for modular SAS RAID controller) |
| **PCI slots** | 1 x 32bit/ 33MHz, 5V |
| **PCI-X** | 2 x 64-bit / 100 MHz, 3.3 V, long (1 x with max. 133 MHz (IOOP™), if only 1 Slot is occupied) |
| **Slot Notes** | in SAS configuration 1x PCI-Express occupied by modular RAID controller |
| **DRIVE BAYS** | |
| **Accessible drive bays** | 3 x 5.25/1.6-inch<br>1 x 3.5/1-inch for FDD |
| **Notes accessible drives** | All possible options described in relevant system configurator<br>2x 3,5-inch HHD box only in SAS configuration |

| **DRIVE BAYS (BASE UNIT SPECIFIC)** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Hard disk bays** | 4 x 3.5-inch hot-plug SAS/ SATA | 4 x 3.5-inch hot-plug SAS/ SATA | 8 x 2.5-inch hot-plug SAS | 8 x 2.5-inch hot-plug SAS | 4 x 3.5-inch hot-plug SAS/ SATA | 4 x 3.5-inch hot-plug SAS/ SATA | 8 x 2.5-inch hot-plug SAS | 8 x 2.5-inch hot-plug SAS |
| **Optional hard disk bays** | 2 x 3.5-inch hot-plug HDD box | 2 x 3.5-inch hot-plug HDD box | 8 x 2.5-inch hot-plug HDD box | 8 x 2.5-inch hot-plug HDD box | 2 x 3.5-inch hot-plug HDD box | 2 x 3.5-inch hot-plug HDD box | 8 x 2.5-inch hot-plug HDD box | 8 x 2.5-inch hot-plug HDD box |

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| **FAN CONFIGURATION** | |
| **Fan configuration** | 3 non hot-plug fans as standard, fan redundancy as option (3+1) |

| **GENERAL SYSTEM INFORMATION (BASE UNIT SPECIFIC)** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fan configuration** | redundant fans (non hot plug) | Standard fans | redundant fans (non hot plug) | Standard fans | redundant fans (non hot plug) | Standard fans | redundant fans (non hot plug) | Standard fans |

| | |
|---|---|
| **OPERATING PANEL** | |
| **Operating buttons** | On/off switch<br>NMI button<br>Reset button |
| **Status LEDs** | System status (amber / yellow)<br>Identification (blue)<br>Hard disks access (green)<br>Power (amber / green)<br>At system rear side:<br>System status (amber / yellow)<br>Identification (blue)<br>LAN connection (green)<br>LAN speed (green / yellow) |
| **Service display** | Optional:<br>ServerView Local Service Panel (LSP) |
| **BIOS** | |
| **BIOS features** | ROM based setup utility<br>Recovery BIOS<br>BIOS settings save and restore<br>Local BIOS update from USB device<br>Online update tools for main Windows and Linux versions<br>Local and remote update via ServerView Update Manager<br>SMBIOS V2.4<br>Remote PXE boot support<br>Remote iSCSI boot support |

## SUPPORTED OPERATING SYSTEMS

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|---|---|
| **Supported operating systems** | Microsoft® Windows Server® 2008 R2<br>Microsoft® Windows Server® 2008<br>Microsoft® Windows Server® 2003 R2<br>Novell SUSE Linux Enterprise Server<br>Red Hat Enterprise Linux<br>VMware Infrastructure<br>VMware vSphere 4.0<br>Note: Support of other Linux derivatives on demand |
| **Operating system release link** | http://ts.fujitsu.com/software<br>http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421 |

## SERVER MANAGEMENT

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|---|---|
| **Standard** | PDA Prefailure Detection and Anaylsis<br>ASR&R Automatic Server Recovery and Restart<br>ServerView Suite:<br>SV Installation Manager<br>SV Operation Manager<br>SV RAID Manager<br>SV Update Management<br>SV Power Management<br>SV Agents<br>Online update packages for BIOS, firmware drivers and ServerView Agents<br>ServerView Integration solutions for Microsoft SMS, MOM, SCOM, SCCM and Altiris<br>Deployment Solution ServerView Deployment Manager (fully functional 30-day trial version)<br>ServerView Integration solutions for Microsoft SMS, MOM, SCOM, SCCM and Altiris Deployment Solution<br>ServerView Deployment Manager (fully functional 30-day trial version) |
| **Option** | ServerView Integration for Tivoli TEC®, Tivoli NetView, HP NNM and HP Operations Manager<br>iRMC S2 Advanced Pack |
| **Server Management notes** | Regarding Operating System dependencies and product details for ServerView Suite Software Products see dedicated Product Data sheets. |

## DIMENSIONS / WEIGHT

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| **Dimension notes** | Width 372 mm with tilt protection |
| **Weight** | up to 35 kg |
| **Weight notes** | Actual weight may vary depending on configuration |
| **Rack integration kit** | Rack integration kit as option |

## DIMENSIONS / WEIGHT (BASE UNIT SPECIFIC)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Floor-stand (W x D x H)** | 215 x 699 x 447 mm | 215 x 699 x 447 mm | 215 x 699 x 447 mm | 215 x 699 x 447 mm | - | - | - | - |
| **Rack (W x D x H)** | - | - | - | - | 486 x 777 x 215 mm | 486 x 777 x 215 mm | 486 x 777 x 215 mm | 486 x 777 x 215 mm |
| **Mounting Depth Rack** | - | - | - | - | 742 mm | 742 mm | 742 mm | 742 mm |
| **Height Unit Rack** | | | | | 5 U | 5 U | 5 U | 5 U |

## ENVIRONMENTAL

| | |
|---|---|
| **Noise emission** | Measured according to ISO 7779 and declared according to ISO 9296 |
| **Sound pressure (LpAm)** | 35 dB(A) (idle) / 37 dB(A) (operating) |
| **Sound power (LWAd; 1B = 10dB)** | 5.3 B idle (idle) / 5.4 B (operating) |
| **Noise notes / description** | only with standard fans and standard PSU |
| **Operating ambient temperature** | 10 - 35°C |
| **Operating relative humidity** | 10 - 85 % (non condensing) |

## ELECTRICAL VALUES

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|---|---|
| **Power supply configuration** | Base unit specific:<br>1x standard power supply or 2x hot-plug power supply (1 + 1 redundancy) |
| **Rated voltage range** | 100 - 127 V / 200 - 240 V |
| **Rated frequency range** | 50 - 60 Hz |
| **Rated current max.** | 9.0 A / 4.5 A (100 V / 240 V) |
| **Rated current in basic configuration** | 2.0 A / 0.86 A (100 V / 240 V) |
| **Active power max. (per system unit)** | 512 W |

| ELECTRICAL VALUES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Apparent power max. (per system unit)** | 531 VA | | | | | | | |
| **Heat emission** | 1843.2 kJ/h (1747.4 BTU) | | | | | | | |
| **ELECTRICAL VALUES (BASE UNIT SPECIFIC)** | | | | | | | | |
| **Power supply configuration** | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| **Standard power supply output** | - | 635 W | - | 635 W | - | 635 W | - | 635 W |
| **Hot-plug power supply output** | 700 W | - | 700 W | - | 700 W | - | 700 W | - |
| **Hot-plug power supply redundancy** | Yes | No | Yes | No | Yes | No | Yes | No |

| COMPLIANCE | |
|---|---|
| **Germany** | GS |
| **Europe** | CE |
| **USA/Canada** | CSAc/us<br>ULc/us<br>FCC Class A |
| **Global** | CB<br>RoHS (Restriction of hazardous substances)<br>WEEE (Waste electrical and electronical equipment) |
| **Japan** | VCCI |
| **Australia/New Zealand** | C-Tick |
| **Taiwan** | BSMI |
| **Compliance notes** | There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request. |
| **Compliance link** | https://sp.ts.fujitsu.com/sites/certificates/default.aspx |

# COMPONENTS

| HARD DISK DRIVES | |
|---|---|
| | SATA, 3 Gb/s, 750 GB, 7200 rpm, hot plug, 3.5-inch |
| | SATA, 3 Gb/s, 500 GB, 7200 rpm, hot plug, 3.5-inch |
| | SATA, 3 Gb/s, 250 GB, 7200 rpm, hot plug, 3.5-inch |
| | SATA, 3 Gb/s, 160 GB, 7200 rpm, hot plug, 3.5-inch |
| | SATA, 3 Gb/s, 1 TB, 7200 rpm, hot plug, 3.5-inch |
| | SAS, 3 Gb/s, 300 GB, 15000 rpm, hot plug, 3.5-inch |
| | SAS, 3 Gb/s, 300 GB, 10000 rpm, hot-plug, 2.5-inch |
| | SAS, 3 Gb/s, 146 GB, 15000 rpm, hot plug, 3.5-inch |
| | SAS, 3 Gb/s, 146 GB, 10000 rpm, hot-plug, 2.5-inch |
| | SAS, 3 Gb/s, 73 GB, 15000 rpm, hot plug, 3.5-inch |
| | SAS, 3 Gb/s, 73 GB, 10000 rpm, hot-plug, 2.5-inch |

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| **Hard disk notes** | Mix of 3.5-inch SAS and SATA HDD requires separate HDD cages and RAID sets<br>One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.<br>Accessible capacity may vary, also depending on used software |

| TAPE DRIVES | |
|---|---|
| | DDS Gen5, 36 GB , 3 MB/s, half height, USB 2.0 |
| | DDS Gen6, 80 GB , 6 MB/s, half height, SCSI U160 |
| | DDS Gen6, 80 GB , 6 MB/s, half height, USB 2.0 |
| | LTO2HH Ultrium, 200 GB , 24 MB/s, half height, SCSI U160 |
| | LTO3HH Ultrium, 400 GB , 60 MB/s, half height, SCSI U320 |
| | LTO4HH Ultrium, 800 GB , 120 MB/s, half height, SAS 3Gb/s |
| | RDX Drive, 80 GB, 160 GB, 320 GB , 25 MB/s, half height, USB 2.0 |

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| **OPTICAL DRIVES** | 1.44 MB Floppy |
| | Blu-ray combo drive, (2x BD-ROM; 8x DVD; 24x CD), slimline, SATA I |
| | Blu-ray combo drive, (6x BD-ROM; 16x DVD; 40x CD), half height, SATA I |
| | DVD-ROM, (16xDVD; 48xCD), half height, SATA I |
| | DVD Super Multi, (16xDVD, 8xDVD+RW 6xDVD-RW, 12xDVD-RAM; 48xCD, 32xCD-RW), half height, SATA I |
| | DVD Super Multi, (8x DVD/DVD+RW, 6x DVD-RW, 5x DVD-RAM; 24x CD/CD-R, 16x CD-RW), slimline, SATA I |
| **SCSI / SAS CONTROLLER** | SCSI Ctrl 320 MB 1ch int/ext PCIe x1 |
| | SAS Ctrl 3 Gb 4 ports int. / 4 ports ext. PCIe x4 |
| **RAID CONTROLLER** | RAID 5/6 Ctrl, SAS/SATA 3 Gb, LSI MegaRAID SAS8880E, 8 ports ext.<br>RAID level: 0, 1, 1+0, 5, 5+0, 6, 6+0, 512 MB Cache, no BBU support (based on LSI 1078) |
| | RAID 5/6 Ctrl, SAS/SATA 3 Gb, LSI MegaRAID SAS8880E, 8 ports ext.<br>RAID level: 0, 1, 1+0, 5, 5+0, 6, 6+0, 512 MB Cache, inclusive BBU (based on LSI 1078) |
| | Integrated SW RAID 5, SATA II 3 Gb, LSI Embedded MegaSR RAID5,<br>RAID level: 0, 1, 10, no BBU support |
| | Integrated RAID 5/6 Ctrl, SAS/SATA 3 Gb, RAID 5/6 SAS based on LSI MegaRAID 256MB, 8 ports int.<br>RAID level: , 256 MB Cache, optional BBU (based on LSI 1078) |
| | Integrated RAID 5/6 Ctrl, SAS/SATA 3 Gb, 8 ports int.<br>RAID level: 0, 1, 1+0, 5, 5+0, 6, 6+0, 512 MB Cache, optional BBU (based on LSI 1078) |
| | Integrated RAID 0/1 Ctrl, SAS/SATA 3 Gb, 8 ports int.<br>RAID level: 0, 1, 1E, no BBU support (based on LSI 1068e) |
| | Integrated RAID 0/1 Ctrl, SAS/SATA 3 Gb, 4 ports int.<br>RAID level: 0, 1, 1E, no BBU support , for internal SAS tapes (based on LSI 1064e) |
| **FIBRE CHANNEL CONTROLLER** | Fibre Channel Ctrl 1 x 4 Gb Emulex LPe1150 MMF LC |
| | Fibre Channel Ctrl 2 x 4 Gb Emulex LPe11002 MMF LC |
| | Fibre Channel Ctrl 1 x 4 Gb Qlogic QLE2460 MMF LC |
| | Fibre Channel Ctrl 2 x 4 Gb Qlogic QLE2462 MMF LC |
| | Fibre Channel Ctrl 2 x 8 Gb Emulex LPe12002 MMF LC |
| | Fibre Channel Ctrl 1 x 8 Gb Emulex LPe1250 MMF LC |
| **LAN CONTROLLER** | Ethernet Ctrl 1 x 1 Gb Intel® Gigabit CT Desktop Adapter |
| | Ethernet Ctrl 1 x 1 Gb Intel® PRO/1000 GT Desktop Adapter |
| | Ethernet Ctrl 1 x 1 Gb Intel® PRO/1000 PF Server Adapter |
| | Ethernet Ctrl 1 x 1 Gb Intel® PRO/1000 PT Server Adapter |
| | Ethernet Ctrl 2 x 1 Gb Intel® PRO/1000 PT Dual Port Server Adapter |
| | Ethernet Ctrl 4 x 1 Gb Intel® PRO/1000 PT Quad Port Server Adapter |
| **RACK INFRASTRUCTURE** | Rackmount kit sliding drawer, full extraction, cable management |

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|---|---|
| **WARRANTY** | |
| **Standard Warranty** | 3 years |
| **Service level** | On-site Service (depending on country) |
| **MAINTENANCE AND SUPPORT SERVICES - THE PERFECT EXTENSION** | |
| **Recommended Service** | 7x24, Onsite Response Time: 4h |
| **Service Weblink** | http://ts.fujitsu.com/Supportservice |

## FUJITSU PLATFORM SOLUTIONS

In addition to Fujitsu PRIMERGY TX200 S4, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

**Dynamic Infrastructures**
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

**Computing Products**
www.fujitsu.com/global/services/computing/

**Software**
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## MORE INFORMATION

Learn more about Fujitsu PRIMERGY TX200 S4, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. http://ts.fujitsu.com/Primergy

## FUJITSU GREEN POLICY INNOVATION

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CONTACT
FUJITSU Technology Solutions
Mies-van-der-Rohe-Straße 8
80807 München
Germany
Website: www.ts.fujitsu.com
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